

23. (Amended) The computer readable memory storing a sound volume adjustment program for controlling a personal computer to conduct sound volume adjustment according to claim 17, wherein

a sound volume adjustment coefficient is stored as said sound volume setting information,

said sound volume data is multiplied by said sound volume adjustment coefficient to generate adjusted said sound volume data,

a sound volume level of said adjusted sound volume data is set to be equivalent to that of a sound volume of a system sound (error sound) generated by said operating system, and

when data is transferred from a software application for which sound volume setting information is yet to be stored,

sound volume setting information based on a set sound volume is stored in said memory corresponding to the software application.

REMARKS

Claims 1-23 are pending in this application. The specification has been objected to. Claim 1-23 have been rejected under 35 U.S.C. § 103. Claims 1-23 in the specification have been amended. No new matter has been added. Reexamination and reconsideration are respectfully requested.

Specification

The Examiner has objected to the Abstract because line 7 includes the legal phrase "said." Applicant has eliminated this legal phrase from the Abstract.

Rejection under 35 U.S.C. § 102.

The Examiner has rejected claims 1-23 under 35 U.S.C. § 103(a) as being unpatentable over various combinations of applicant's admitted prior art, Odlen et al., U.S. Patent No. 4,292,467, and Hetherington, U.S. Patent No. 5,289,546. These rejections are respectfully traversed. However, applicant has amended claims 1-23 for clarity and to further distinguish embodiments of applicant's invention over the referenced art. No new matter has been added.

Applicant's amended claim 1 recites a sound volume adjustment system for a personal computer comprising, *inter alia*, a memory for storing sound volume setting information for a plurality of software applications and a sound volume adjustment control means for adjusting sound volume data for each of the plurality of applications stored in the memory. These limitations are not disclosed or suggested, individually or in combination, in applicant's admitted prior art, Odlen or Hetherington. Odlen is directed toward audio receiver control. In Odlen, the functions of an audio receiver, for example, volume, tuning and tone, are controlled electronically using memory registers. Thus, mechanical parts are substantially eliminated. Odlen, however, bears no relation to embodiments of the invention claimed by applicant. Applicant respectfully points out to the Examiner that the Odlen application was filed in October of 1978, long before proliferation of the personal computer. Moreover, there are no software applications associated with Odlen that require volume adjustment. Odlen is simply replacing mechanical functions with electrical functions. This bears little resemblance to embodiments of the invention claimed by applicant.

Hetherington is directed toward an apparatus and method for smooth audio scaling. In Hetherington, the volume control algorithm in association with a computer system increases or decreases the perceived volume of a computer's audio output over time. Hetherington merely describes a water rhythmic algorithm for adjusting a computer's audio output. There is no mechanism in Hetherington for storing volume setting information for a plurality of software applications in adjusting sound volume data for any one of the plurality of software applications based on the stored information as claimed by applicant.

Claims 9 and 17 recite limitations similar to those recited in claim 1.

Accordingly, there are limitations recited in claim 1, 9 and 17 not found in applicant's admitted prior art, Odlen or Hetherington, individually or in combination. Thus, a *prima facie* case of obviousness has not been established for these claims. Likewise, claims 2-8, which depend either directly or indirectly from claim 1, claims 10-16 which depend either directly or indirectly from claim 9, and claims 18-23, which depend either directly or indirectly from claim 17, are also not obvious over applicant's admitted prior art, Odlen or Hetherington. Therefore, withdrawal of the rejection of claims 1-23 under 35 U.S.C. § 103 is respectfully requested.

Acknowledgement of Priority

Applicant respectfully requests that the Examiner acknowledge that all of the certified copies of the priority documents have been received.

Respectfully submitted,

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Fumiaki KAMIJO

Title: SOUND VOLUME ADJUSTMENT
SYSTEM IN PERSONAL
COMPUTER AND SOUND
VOLUME ADJUSTMENT
METHOD THEREOF

Appl. No.: 09/625,510

Filing Date: 07/25/2000

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Art Unit: 2644

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Mark-up of Amendment and Request for Reconsideration Under 37 C.F.R. § 1.111

Commissioner for Patents
Box NON-FEE AMENDMENT
Washington, D.C. 20231

Sir:

This communication is responsive to the Office Action dated September 5, 2002 , concerning the above-referenced patent application.

IN THE ABSTRACT

Please replace the Abstract Of The Disclosure with the following:

The sound volume adjustment system for a personal computer includes a memory in which sound volume setting information set for each application is registered, and a sound volume adjustment control unit for adjusting, for each application, sound volume data of voice data transferred from the application to an operating system based on said the sound volume setting information to generate adjusted sound volume data ~~having been adjusted~~ and transferring the adjusted sound volume data ~~having been adjusted~~ to the operating system.

IN THE CLAIMS

Please amend the following claims:

1. (Amended) A sound volume adjustment system for a personal computer, comprising:

a memory in which plural sound volume setting information ~~set for each application~~ a plurality of software applications is ~~registered~~ stored, and

sound volume adjustment control means for adjusting, based on said sound volume setting information, ~~for each application~~, sound volume data ~~of voice data transferred from said~~ for each application to an operating system of the plurality of software applications based on said sound volume setting information ~~to generate sound volume data having been adjusted~~ and transferring the adjusted sound volume data ~~having been adjusted to the~~ an operating system.

2. (Amended) The sound volume adjustment system for a personal computer according to claim 1, wherein

in said memory a sound volume adjustment coefficient is stored as said sound volume setting information, and

said sound volume adjustment control means multiplies said sound volume data by said sound volume adjustment coefficient to generate said ~~sound volume data having been adjusted~~ sound volume data.

3. (Amended) The sound volume adjustment system for a personal computer according to claim 1, wherein

a sound volume level of said adjusted sound volume data ~~having been adjusted~~ is set to be equivalent to that of a sound volume of a system sound (error sound) generated by said operating system.

4. (Amended) The sound volume adjustment system for a personal computer according to claim 1, wherein

in said memory a sound volume adjustment coefficient is stored as said sound volume setting information,

said sound volume adjustment control means multiplies said sound volume data by said sound volume adjustment coefficient to generate said adjusted sound volume data ~~having been adjusted~~, and

a sound volume level of said adjusted sound volume data ~~having been adjusted~~ is set to be equivalent to that of a sound volume of a system sound (error sound) generated by said operating system.

5. (Amended) The sound volume adjustment system for a personal computer according to claim 1, wherein

when ~~voice~~ data is transferred from ~~an~~ software application for which sound volume setting information is yet to be ~~registered~~ stored,

said sound volume adjustment control means displays sound volume adjustment function indications on an operation screen to ~~store~~ register, in said memory, sound volume setting information based on a sound volume set ~~by the operation through~~ said sound volume adjustment function indications ~~so as to correspond~~ corresponding to the software application.

6. (Amended) The sound volume adjustment system for a personal computer according to claim 1, wherein

in said memory a sound volume adjustment coefficient is stored as said sound volume setting information,

said sound volume adjustment control means multiplies said sound

volume data by said sound volume adjustment coefficient to generate said ~~sound~~
~~volume data having been adjusted~~ sound volume data, and

when ~~voice~~-data is transferred from ~~an~~ a software application for which
sound volume setting information is yet to be ~~registered~~ stored,

said sound volume adjustment control means displays sound volume
adjustment function indications on an operation screen to ~~store~~ register, in said
memory, sound volume setting information based on a sound volume set ~~by the~~
~~operation through~~ said sound volume adjustment function indications ~~so as to~~
~~correspond~~ corresponding to the software application.

7. (Amended) The sound volume adjustment system for a personal
computer according to claim 1, wherein

a sound volume level of said ~~sound volume data having been adjusted~~
sound volume data is set to be equivalent to that of a sound volume of a system sound
(error sound) generated by said operating system, and

when ~~voice~~-data is transferred from ~~an~~ a software application for which
sound volume setting information is yet to be ~~registered~~ stored,

said sound volume adjustment control means displays sound volume
adjustment function indications on an operation screen to ~~store~~ register, in said
memory, sound volume setting information based on a sound volume set ~~by the~~
~~operation through~~ said sound volume adjustment function indications ~~so as to~~
~~correspond~~ corresponding to the software application.

8. (Amended) The sound volume adjustment system for a personal
computer according to claim 1, wherein

in said memory a sound volume adjustment coefficient is stored as said

sound volume setting information,

said sound volume adjustment control means multiplies said sound volume data by said sound volume adjustment coefficient to generate said adjusted sound volume data ~~having been adjusted~~,

a sound volume level of said adjusted sound volume data ~~having been adjusted~~ is set to be equivalent to that of a sound volume of a system sound (error sound) generated by said operating system,

when ~~voice~~ data is transferred from ~~an~~ software application for which sound volume setting information is yet to be ~~registered~~ stored,

said sound volume adjustment control means displays sound volume adjustment function indications on an operation screen to ~~store~~ register, in said memory, sound volume setting information based on a sound volume set ~~by the operation through said sound volume adjustment function indications so as to correspond~~ corresponding to the software application.

9. (Amended) A sound volume adjustment method for a personal computer, comprising the steps of:

~~registering~~ storing sound volume setting information ~~set for each application~~ a plurality of software applications so that plural sound information is stored for said plurality of software applications,

adjusting, ~~for each application~~ based on said sound volume setting information, sound volume data ~~of voice data transferred from~~ for each of the application to an operating system plurality of software applications based on said sound volume setting information ~~to generate sound volume data having been adjusted~~; and

transferring said adjusted sound volume data ~~having been adjusted to~~
the an operating system.

10. (Amended) The sound volume adjustment method for a personal computer according to claim 9, wherein

a sound volume adjustment coefficient is ~~registered~~ stored as said sound volume setting information, and

said sound volume data is multiplied by said sound volume adjustment coefficient to generate said ~~sound volume data having been adjusted~~ sound volume data.

11. (Amended) The sound volume adjustment method for a personal computer according to claim 9, wherein

a sound volume level of said adjusted sound volume data ~~having been adjusted~~ is set to be equivalent to that of a sound volume of a system sound (error sound) generated by said operating system.

12. (Amended) The sound volume adjustment method for a personal computer according to claim 9, wherein

a sound volume adjustment coefficient is stored as said sound volume setting information,

said sound volume data is multiplied by said sound volume adjustment coefficient to generate said adjusted sound volume data ~~having been adjusted~~, and

a sound volume level of said adjusted sound volume data ~~having been adjusted~~ is set to be equivalent to that of a sound volume of a system sound (error sound) generated by said operating system.

13. (Amended) The sound volume adjustment method for a personal

computer according to claim 9, wherein

when ~~voice~~-data is transferred from ~~an~~ software application for which sound volume setting information is yet to be ~~registered~~stored, sound volume setting information based on a set sound volume is ~~registered~~stored in said memory ~~so as to correspond~~corresponding to the software application.

14. (Amended) The sound volume adjustment method for a personal computer according to claim 9, wherein

a sound volume adjustment coefficient is stored as said sound volume setting information,

said sound volume data is multiplied by said sound volume adjustment coefficient to generate said ~~sound volume data having been adjusted~~ sound volume data, and

when ~~voice~~-data is transferred from ~~an~~ software application for which sound volume setting information is yet to be ~~registered~~stored, sound volume setting information based on a set sound volume is ~~registered~~stored in said memory ~~so as to correspond~~corresponding to the software application.

15. (Amended) The sound volume adjustment method for a personal computer according to claim 9, wherein

a sound volume level of said ~~sound volume data having been adjusted~~ sound volume data is set to be equivalent to that of a sound volume of a system sound (error sound) generated by said operating system, and

when ~~voice~~-data is transferred from ~~an~~ software application for which sound volume setting information is yet to be ~~registered~~stored, sound volume setting information based on a set sound volume is ~~registered~~stored in said memory ~~so as to~~

~~correspond~~corresponding to the software application.

16. (Amended) The sound volume adjustment method for a personal computer according to claim 9, wherein

a sound volume adjustment coefficient is stored as said sound volume setting information,

said sound volume data is multiplied by said sound volume adjustment coefficient to generate said adjusted sound volume data ~~having been adjusted~~,

a sound volume level of said adjusted sound volume data ~~having been adjusted~~ is set to be equivalent to that of a sound volume of a system sound (error sound) generated by said operating system, and

when ~~voice~~ data is transferred from ~~an~~ software application for which sound volume setting information is yet to be ~~registered~~stored, sound volume setting information based on a set sound volume is ~~registered~~stored in said memory ~~so as to~~ ~~correspond~~corresponding to the software application.

17. (Amended) A computer readable memory storing a sound volume adjustment program for controlling a personal computer to conduct sound volume adjustment,

said sound volume adjustment program comprising the steps of:

~~registering~~storing sound volume setting information ~~set for each application~~a plurality of software applications so that plural sound information is stored for said plurality of software applications,

adjusting, ~~for each application~~based on said sound volume setting information, sound volume data ~~of voice data transferred from~~for each of the application to an operating systemplurality of software applications based on said

sound volume setting information to generate sound volume data having been adjusted, and

transferring said adjusted sound volume data having been adjusted to the an operating system.

18. (Amended) The computer readable memory storing a sound volume adjustment program for controlling a personal computer to conduct sound volume adjustment according to claim 17, wherein

a sound volume adjustment coefficient is ~~registered~~ stored as said sound volume setting information, and

said sound volume data is multiplied by said sound volume adjustment coefficient to generate said ~~sound volume data having been adjusted~~ sound volume data.

19. (Amended) The computer readable memory storing a sound volume adjustment program for controlling a personal computer to conduct sound volume adjustment according to claim 17, wherein

a sound volume level of said adjusted sound volume data ~~having been adjusted~~ is set to be equivalent to that of a sound volume of a system sound (error sound) generated by said operating system.

20. (Amended) The computer readable memory storing a sound volume adjustment program for controlling a personal computer to conduct sound volume adjustment according to claim 17, wherein

a sound volume adjustment coefficient is stored as said sound volume setting information,

said sound volume data is multiplied by said sound volume adjustment coefficient to generate said adjusted sound volume data ~~having been adjusted~~, and

a sound volume level of said adjusted sound volume data ~~having been adjusted~~ is set to be equivalent to that of a sound volume of a system sound (error sound) generated by said operating system.

21. (Amended) The computer readable memory storing a sound volume adjustment program for controlling a personal computer to conduct sound volume adjustment according to claim 17, wherein

when ~~voice~~ data is transferred from ~~an~~ software application for which sound volume setting information is yet to be ~~registered~~ stored,

sound volume setting information based on a set sound volume is ~~registered-stored~~ in said memory ~~so as to correspond~~ corresponding to the software application.

22. (Amended) The computer readable memory storing a sound volume adjustment program for controlling a personal computer to conduct sound volume adjustment according to claim 17, wherein

a sound volume adjustment coefficient is stored as said sound volume setting information,

said sound volume data is multiplied by said sound volume adjustment coefficient to generate said ~~sound volume data having been adjusted~~ sound volume data, and

when ~~voice~~ data is transferred from ~~an~~ software application for which sound volume setting information is yet to be ~~registered~~ stored,

sound volume setting information based on a set sound volume is ~~registered-stored~~ in said memory ~~so as to correspond~~ corresponding to the software application.

23. (Amended) The computer readable memory ~~which~~ storing a sound

volume adjustment program for controlling a personal computer to conduct sound volume adjustment according to claim 17, wherein

a sound volume adjustment coefficient is stored as said sound volume setting information,

said sound volume data is multiplied by said sound volume adjustment coefficient to generate adjusted said sound volume data ~~having been adjusted~~,

a sound volume level of said adjusted sound volume data ~~having been adjusted~~ is set to be equivalent to that of a sound volume of a system sound (error sound) generated by said operating system, and

when ~~voice~~ data is transferred from ~~an~~ software application for which sound volume setting information is yet to be ~~registered~~ stored,

sound volume setting information based on a set sound volume is ~~registered~~ stored in said memory ~~so as to correspond~~ corresponding to the software application.